



File Code: 3400  
Date: June 11, 2010

John Ferrara, JR.  
Park Manager  
Pennsylvania Dept of Conservation & Natural Resources  
Bald Eagle State Park  
149 Main Park Road  
Howard, PA 16841

Dear Mr. Ferrara:

On April 21, 2010, Brad Onken and Karen Felton from the Morgantown Forest Health Protection (FHP) staff visited Bald Eagle State Park, which is out-granted by the Foster Joseph Sayers Project, US Army Corps of Engineers to the Pennsylvania Department of Conservation and Natural Resources. The purpose of the visit was to assess hemlock woolly adelgid (HWA) populations and the need for treatments in the Rustic Campground and Skyline Drive Area at Bald Eagle SP. For survey purposes the Skyline Drive Area was divided up into 3 separate areas: Monument site, North Gate site, and Southern area. See Figure 1 for site locations. Results of the survey confirm that HWA populations exist in all the proposed survey areas. More information from the survey and recommendations for each site area are provided below.

The Rustic Campground area is a dry upland site and has very few, scattered hemlock trees. HWA has been established in this area for quite some time. The majority of the hemlocks are in severe decline and 83% of the trees surveyed are infested. On a site level, hemlocks are heavily infested even though HWA population densities on individual trees ranged from none to heavy. Treatments in this area should be limited to a select few trees that are healthy enough to recover or may be considered a direct hazard to campers. Eastern red cedar and white pine are abundant at this site so the loss of hemlocks will not necessarily impact your desire to maintain a conifer component in this area.

Skyline Drive Area –Monument site is a group of 30 plus hemlock trees along the road next to the Foster Joseph Sayers Monument. Trees are in light to moderate decline and generally moderately infested. Recommendation at this site is to treat as soon as possible to prevent further decline. Treatments consisting of either dinotefuran or imidacloprid are acceptable but dinotefuran offers more immediate control (weeks rather than months) while imidacloprid offers more years of protection (3-5 years verses 1-2 years with dinotefuran).

Skyline Drive Area-North Gate site is by far your best representation of a naturally occurring hemlock forest. Hemlock trees occur from the road down to the cove and are healthy with abundant new tip growth. HWA densities ranged from none to lightly infested, with a few trees located closest to the road having higher HWA densities. Thirty six percent (36%) of the surveyed trees are infested. It is recommended that treatments



begin soon in this area to ensure the integrity and health of the stand. Imidacloprid would work well since HWA populations are low and it provides a residual benefit for up to 3- 5 years. It is recommended that treatment of trees start on the upper side near the road and work your way down to the lake until you max out on the label restrictions of allowable active ingredient/acre (0.4 pounds of active ingredient per year). The label restriction and large number of hemlock trees in this area will prevent you from being able to treat every tree in one year so you will need to continue treating trees over the course of several years to treat the entire stand.

Skyline Drive Area- South has some of the largest hemlocks, however they are moderately to severely impacted and have little new tip growth. Most trees are moderately infested and HWA population densities ranged from none to heavy on individual trees. Some trees have upper crowns that still appear healthy enough to respond to treatment. We recommend taking a triage approach and focus on treating only the healthier trees with deeper fuller crowns. Imidacloprid would offer up to 3-5 years of protection on the treated trees and protect them from becoming re-infested from the untreated trees.

We suggest that you permanently mark the treated trees with either color coded paint or tags so they can be identified as to the year of treatment and insecticide used. This will allow you to know which trees have been treated in the years to come.

Resource managers should annually monitor tree health conditions, adelgid population densities and treatment efficacy. If you have any questions please feel free to contact Brad Onken, 304-285-1546 or Karen Felton, 304-285-1556.

Sincerely,



ROBERT G LUECKEL  
Field Representative  
Morgantown Field Office

Cc: Lacey Evans, ACE Baltimore District  
Dwight Beal, Project Manager, Raystown Lake  
Jeff Krause, Wildlife Biologist, Raystown Lake  
Don Eggen, PABOF  
Tim Marasco, PABOF

Figure 1.—Hemlock areas surveyed by USDA Forest Service personnel on April 21, 2010.

